Remarks

Applicants request reconsideration and allowance of the subject application in view of the foregoing amendments and the following remarks.

Claims 68-70, 72-75, 77-84, 88, 120, 121, 124, and 126 are now pending, of which claims 68 and 126 are independent claims. Claims 68 has been amended. Claim 126 is new. Support for the amendments and new claim can be found throughout the originally-filed disclosure, including, for example, at p. 32, line 5 through p. 33, line 9 of the specification. Accordingly, Applicants submit that the amendments and new claim do not introduce new matter.

The March 4, 2009 Office Action rejects claims 68-84, 88, and 120-124 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,605,343 (Motoi)[1] in view of U.S. Patent No. 5,366,773 (Schroll).

Applicants respectfully traverse the rejection, and submit that the cited references fail to teach or suggest the invention recited in the independent claims for at least the following reasons.

Amended independent claim 68 recites a method that includes steps reciting a specific and manner and order for making an elongated composite structural material. More specifically, the method comprises steps including, inter alia, (1) supplying a single strip of a porous web material; (2) applying an epoxy thermosetting-resin-precursor mixture to the web material; (3) laying reinforcing cords on at least one side of the web material to which the thermosetting-resin-precursor mixture has been applied; (4) forcing the single strip of web material with the

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[1] The Office Action refers to Motoi as U.S. Patent No. 6,635,343. Applicants assume this was a typographical error, and that the Office Action intended to refer to U.S. Patent No. 6,605,343.

cords into a sleeve-like configuration by wrapping and pulling the single strip of web material over an elongated mandrel; (5) depositing on the cord-carrying side of the web material, in the sleeve-like configuration, a fluid matrix-resin-precursor composition; and (6) holding the sleeve-like configuration under conditions that are conductive to setting of the matrix and thermosetting resins applied to the web material.

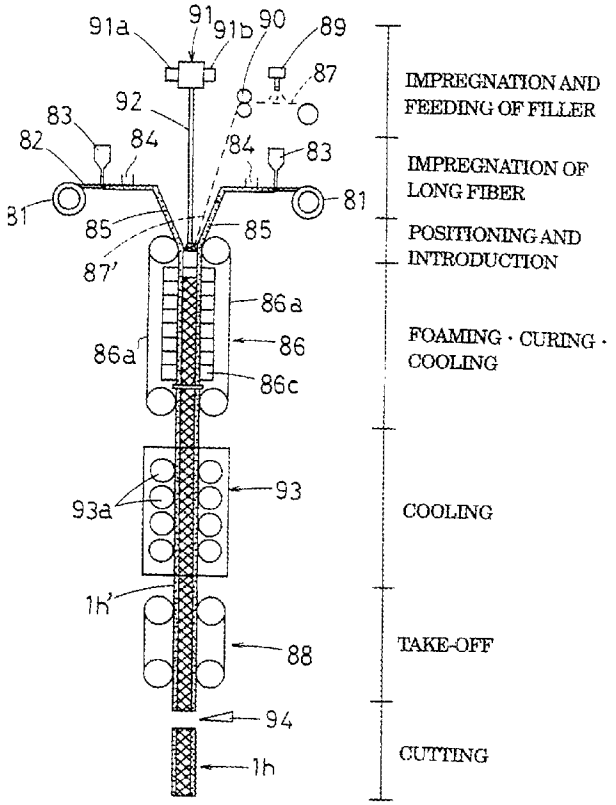
The Office Action asserts that Motoi discloses features of the claimed invention, including some of the method steps recited in independent claim 68.

Applicants respectfully submit, however, that Motoi cannot be understood to disclose or suggest all of the steps of the method recited in amended independent claim 68, and further, there is no obvious reason or way for one of ordinary skill in the art to modify the method disclosed by Motoi to result in the claimed method.

Initially, Applicants note that the Office Action acknowledges that Motoi does not specifically disclose a step of providing a layer of porous web material, and that Motoi also does not disclose a step of shaping a sleeve-like configuration over a mandrel, as recited in independent claim 68. Although not expressly found in the Office Action, Applicants also submit that Motoi cannot be taken to disclose a step providing a single strip of porous web material, as also recited in claim 68. Accordingly, a comparison of the steps of the claimed method with the methods disclosed by Motoi must start with these deficiencies in the express disclosure of Motoi in mind.

To this end, the most pertinent portion of Motoi with respect to a method, and the part of the reference cited in the Office Action, appears to be at cols. 27-29. This passage of Motoi corresponds to Figure 13 of the reference, which is reproduced below.

Fig.13



As generally shown in Figure 13 of Motoi, resin impregnated fiber bundles 85 are brought together at the beginning of continuous molds 86. A foamed sheet material 87 is further brought to the inside of the resin impregnated fiber bundles 85 at the beginning of the continuous molds 86. Still further, a foam resin composition 92 is introduced between the fiber bundles at the beginning of the continuous molds 86. Thus, the components that make up the composite product are brought together in a non-solidified state at the beginning of the continuous molds 86, processed in the molds, and then subsequently cooled into the solidified product.

With this disclosed method of Motoi in mind, Applicants submit that there would be no obvious reason or way for one of ordinary skill in the to derive the method of amended independent claim 68 that includes the specific steps reciting the manner and order for making a composite structural material. For example, there would be no obvious way for one of ordinary skill in the art to supply a single strip of porous web material in the process of Motoi, and then force the single strip into of web material into a sleeve like configuration by wrapping and pulling the single strip of web material over an elongated mandrel, while still then somehow joining the sleeve-like configuration with the other components of the disclosed product that are brought together at molds 86. To consider this another way, there would be no apparent reason or way for one of ordinary skill in the art to change the process of Motoi so that the resin impregnated fiber bundles 85 would be combined with a porous web material in a sleeve-like configuration while still somehow being combined with the foamed sheet material 87 and the foam resin composition 92 at the beginning of the continuous molds 86.

Applicants additionally note that Motoi does disclose another method for making a composite product in conjunction with Figure 3 of the reference. This method, however, appears to be similar to the method recited in Figure 13, and, in any event, does not include any of the features of the steps recited in amended independent claim 68 that are not found in the process disclosed in Figure 13, as described above.

Applicants further submit that the secondary citation to Schroll fails to cure the deficiencies of Motoi. Schroll is cited in the Office Action as disclosing a method for making a tubular member comprising, inter alia, impregnating a fiber roving and mat with an uncured resin and then wrapping and shaping the combined materials around a mandrel. The Office Action

concludes that it would have been obvious to one of ordinary skill in the art to modify the process of Motoi so as to include shaping with a mandrel based on the disclosure of Schroll.

Initially, Applicants note that Schroll still does not appear to expressly disclose a single strip of porous web material forced into a sleeve-like configuration, as recited in the claimed invention. Further, Applicants respectfully submit that there would not be any obvious way to incorporate the mandrel of Schroll into the method of Motoi and derive the claimed method without first completely changing the method of Motoi in a manner that is not suggested by the references. As noted above, Motoi discloses a process wherein the components of the composite product are brought together at the beginning of continuous molds, and thereafter assembled and shaped by the molds. A mandrel, such as that disclosed by Schroll, simply could not be incorporated into the process disclosed by Motoi without completely changing the order and manner in which the components of Motoi's disclosed process are assembled, and there is simply insufficient evidence in the references to indicate that such intricate modifications would have been obvious to one of ordinary skill in the art.

In sum, Applicants submit that even if the combination of Motoi and Schroll disclose parts of the steps of the method recited in amended independent claim 68, the steps of the claimed method are not fully disclosed or suggested by the combination of the references, and there is no obvious reason or way for one of ordinary skill in the art to combine and/or modify the processes disclosed by the cited references to derive the steps of amended independent claim 68 that include a specifically recited manner and order for making a composite structural material.

With respect to new independent claim 126, Applicants note that this claim recites all of the features of independent claim 68. Therefore, independent claim 126 is distinguishable from

the cited references to Motoi and Schroll for at least the same reasons described above in conjunction with independent claim 68. Additionally, independent claim 126 recites further features of the steps that make the claimed method even further removed from the methods of Motoi and Schroll. For example, independent claim 126 recites that the fluid matrix-resin precursor composition is supplied through an interior passage in the elongated mandrel. Such a feature is not suggested by Motoi or Schroll.

The dependent claims also should be deemed allowable, in their own right, for defining other patentable features of Applicants' invention in addition to those recited in claim 68. Further individual consideration of all of the dependent claims is requested.

Applicants submit that the subject application is in condition for allowance. Favorable reconsideration of the rejection set forth in the March 4, 2009 Office Action, and an early Notice of Allowance are requested.

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Applicants' undersigned attorney can be reached in the Washington, D.C. office of Fitzpatrick, Cella, Harper & Scinto by telephone at (202) 530-1010. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

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